

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1-11 (canceled).

Claim 12 (new): A gamma correction circuit arranged to output a gamma-corrected set voltage in order to correct an image voltage in accordance with a nonlinear correlation between an applied voltage and a brightness of a display element, comprising:

a gamma correction data output circuit arranged to output a plurality of gamma correction data for each color of RGB;

a plurality of registers arranged to input and hold the plurality of gamma correction data; and

a plurality of D/A converters, each of which converts the data of each of the plurality of registers into an analog voltage and outputs a gamma-corrected set voltage.

Claim 13 (new): The gamma correction circuit according to Claim 12, wherein the gamma-corrected set voltage is output via a buffer.

Claim 14 (new): The gamma correction circuit according to Claim 12, wherein the gamma correction data output circuit is arranged to output a plurality of gamma correction data that are input from outside the gamma correction circuit for each color of RGB during an adjustment of the gamma-corrected set voltage, to retrieve a plurality of gamma correction data for each color of RGB from a nonvolatile memory after the adjustment of the gamma-corrected set voltage, and to output the plurality of gamma correction data.

Claim 15 (new): The gamma correction circuit according to Claim 12, wherein the gamma correction data output circuit is arranged to output a plurality of gamma correction data for each color of RGB in turn in accordance with a horizontal synchronization signal of a display panel.

Claim 16 (new): The gamma correction circuit according to Claim 12, wherein the plurality of registers are provided for each color of RGB, and the data of the plurality of registers of each color are selected in turn in accordance with a horizontal synchronization signal of a display panel and input to the D/A converters.

Claim 17 (new): The gamma correction circuit according to Claim 12, wherein the plurality of registers and the plurality of D/A converters are provided for each color of RGB and gamma-corrected set voltages of each color are selected in turn in accordance with a horizontal synchronization signal of a display panel and output therefrom.

Claim 18 (new): The gamma correction circuit according to Claim 16, wherein the plurality of registers provided for each color of RGB hold gamma correction data that are retrieved from a nonvolatile memory for each color of RGB when power is turned ON.

Claim 19 (new): A display panel comprising:
a plurality of display elements arranged in two dimensions for the colors of RGB; and

source lines and gate lines; wherein
voltages of the source lines are applied to the plurality of display elements connected to a selected one of the gate lines, a plurality of display elements for one color are connected to each of the gate lines, and each of the gate lines connected to a plurality of display elements for each color is selected in turn in accordance with a horizontal synchronization signal.

Claim 20 (new): A display device comprising:
the gamma correction circuit according to Claim 12;
a source driver to which image data are input and which outputs corrected image voltages by selecting a corresponding gamma-corrected set voltage or interpolation voltage thereof; and
a display panel in which gate lines are driven by a gate driver and corrected image voltages of the source driver are input to source lines of the display panel.

Claim 21 (new): The display device according to Claim 20, wherein the gamma correction circuit is arranged to output gamma-corrected set voltages for each color of RGB in turn in accordance with a horizontal synchronization signal, and the gate line to which display elements of the associated color are connected is selected for the display panel.

Claim 22 (new): The display device according to Claim 21, wherein the display device is a liquid crystal display device.

Claim 23(new): display device comprising:
a gamma correction circuit;
a source driver to which image data are input and which outputs corrected image voltages by selecting a corresponding gamma-corrected set voltage or interpolation voltage thereof; and
a display panel according to Claim 19.

Claim 24 (new): The display device according to Claim 23, wherein the gamma correction circuit is arranged to output gamma-corrected set voltages for each color of RGB in turn in accordance with a horizontal synchronization signal, and a gate line to which display elements of the associated color are connected is selected for the display panel.

Claim 25 (new): The display device according to Claim 23, wherein the display device is a liquid crystal display device.